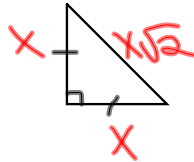


10-2 45-45-90 Triangles  
 10-3 30-60-90 Triangles

Theorem 10.1--In a  $45^\circ$ - $45^\circ$ - $90^\circ$  triangle, the length of the hypotenuse is  $\sqrt{2}$  times the length of the leg

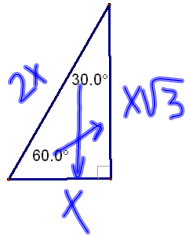


45	45	90
X	X	$X\sqrt{2}$
3	3	$3\sqrt{2}$
4	4	$4\sqrt{2}$
5	5	$5\sqrt{2}$
8	8	$8\sqrt{2}$
2.4	2.4	$2.4\sqrt{2}$
800	800	$800\sqrt{2}$

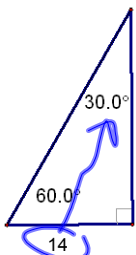
45	45	90
* $3\sqrt{2}$	$3\sqrt{2}$	6
* $4\sqrt{2}$	$4\sqrt{2}$	8
* $5\sqrt{2}$	$5\sqrt{2}$	10
* $3.5\sqrt{2}$	$3.5\sqrt{2}$	7
7	7	$7\sqrt{2}$

$\frac{6}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{6\sqrt{2}}{2}$   
 $3\sqrt{2}$

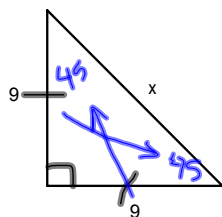
Theorem 10.2--In a 30-60-90 triangle, the length of the hypotenuse is twice the length of the shorter leg and the length of the longer leg is  $\sqrt{3}$  times the length of the shorter leg



30	60	90
X	$X\sqrt{3}$	2X
4	$4\sqrt{3}$	8
5	$5\sqrt{3}$	10
6	$6\sqrt{3}$	12
10	$10\sqrt{3}$	20
45	$45\sqrt{3}$	9
* $3\sqrt{3}$	9	$6\sqrt{3}$ $\div 3$ then $\sqrt{3}$
* $4\sqrt{3}$	12	$8\sqrt{3}$
* $7\sqrt{3}$	21	$14\sqrt{3}$



30	60	90
X	$X\sqrt{3}$	2X
14	$14\sqrt{3}$	28



45	45	90
X	X	$X\sqrt{2}$
9	9	$9\sqrt{2}$

HW

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